

**REMARKS/ARGUMENTS**

Claims 1 – 11 and 13 – 20 are pending. Claim 12 was canceled by a previous Amendment. Claims 1, 6, 9 11, 13, 16, 19 and 20 are amended by this Amendment.

The amendment to claim 6 is solely to correct punctuation, to add a period at the end of the claim.

Claims 1 – 20 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 7,101,430 to Pike, et al. (hereinafter, “Pike”).

The application relates to a pourable mortar with a high degree of fluidity (claim 1, as amended, recites a dry premix for preparing a “pourable mortar with a high degree of fluidity”). As set forth in the application, the technical problem at issue is rather complex since a high degree of fluidity is needed for those mortars together with enough mechanical resistance, with no increase in setting time delaying removal from the molds, and also without resorting to large amounts of fluidifiers/superfluidifiers. These features are in contrast one with the other, and the present disclosure surprisingly provides a solution to the complex technical problem by selecting a special granulometric distribution of the aggregates in the dry premix as defined in claim 1.

The Pike reference does not deal with fluid mortars, nor make reference to their fluidity. The tri-modal particle size distribution mentioned in Pike (col. 8, line 36 – 37) does

not refer to aggregates, but to pozzolans, and (see the abstract) “The pozzolans act as functional ingredients in the mix rather than as a filler.” Pike defines a pozzolan as “A substance which in itself is not a cement but when combined with moisture and hydrated lime under ambient temperature conditions will produce cementitious properties.” (col. 5, lines 5 – 8). Pozzolans should not be confused with aggregates, which are inert and do not react in the system. Accordingly, it is certainly not correct to believe that Pike’s “trimodal arrangement” would “meet the limitations of the applicant’s claims.”

Furthermore, the particle size distributions of pozzolans (in Pike) and of aggregates (in the present application) are substantially different. In fact, at col. 8, line 34 (just prior to the tri-modal particle size distribution of pozzolans referenced above), Pike discloses the feature of “A fineness of not more than 24% retained on the 45 micron sieve.” In line with that, in the examples of cols. 18 and 19, the value 24% is set as a maximum standard to be retained by a 325 mesh, which corresponds to about 45 microns. At col. 19, line 5, it can be seen that Example 4 mortar cement gives a value of 19% [retained], indicating that 81% are finer than 45 microns, i.e., 0.045 mm. This is clearly distinguished from the aggregates provided in claim 1 of the present application, where 75% - 95% of the aggregates are coarser than a minor fraction D (5 – 25 wt%) having a grain diameter not lower than 0.1 mm (see page 6), i.e., more than twice the diameter which is a critical value for the fineness set by Pike for pozzolans. Therefore, even if a comparison between pozzolans and aggregates were made for the sake of argument, a person of ordinary skill in the art would expect that no fraction at all (0%) of the fine pozzolans of Pike – not even the coarsest one retained on the

45 micron sieve – would meet the limitations in claim 1 as to the aggregates. Therefore, for these reasons, claim 1 is not disclosed or suggested by Pike.

Claims 2 – 11 and 13 – 20 are likewise distinguishable over Pike, based on similar considerations as presented for claim 1 above. Claim 12 was canceled by a previous Amendment, mooting the §103(a) rejection thereto.

Accordingly, based on the amendments and arguments presented above, Applicants respectfully request reconsideration and withdrawal of the §103(a) rejections to claims 1 – 11 and 13 - 20 over Pike.

Claims 1 – 20 are also rejected under 25 U.S.C. §112, 2<sup>nd</sup> paragraph. Applicants appreciate the suggestions in the Office Action to address the §112 rejections, which are addressed below in the order presented in the Office Action:

- The term “highly” (before monogranular) in claims 1, 11, 13, 16, 19 and 20 is deleted by this Amendment.
- Parentheses around “(A, B, C)” in claims 1, 11, 13, 16, 19, and 20 are deleted by this Amendment.
- As to the inquiry in the Office Action relating to “grain diameter,” Applicants submit that the application defines a “characteristic grain diameter” of a given fraction of aggregates ( $X_0$ ) as the mesh opening [expressed in mm] of the screen for which the cumulative undersize ( $P_c$ ) for that given fraction is equal to 63.2%. Therefore, “average” (as

proposed in the Office Action) would not relate to claim 1 or other claims where the term “characteristic grain diameter” appears.

- Parentheses around “(5-25 wt%)” have been deleted in claims 1, 11, 13, 16, 19, and 20, and the claims amended to place the wt% range earlier in the phrase for clarity.

- The term “low” (before monogranularity) has been deleted in claims 1, 11, 13, 16, 19 and 20 by this Amendment, and amended that fourth fraction D has a “lower monogranularity than fractions A, B, C” for clarity. Monogranularity  $n$  is defined in the application, and Applicants submit that the scope of the claims are clear where A, B, C are defined as monogranular (diameter tending to  $X_0$ ), and D of lower monogranularity (a lower uniformity of grain diameter).

- In claim 9, the term “type” is deleted by this Amendment, and Markush language has been added, as suggested in the Office Action.

- Parentheses around fourth fraction “(D)” have been deleted in claims 1, 11, 13, 16, 19, and 20 by this Amendment.

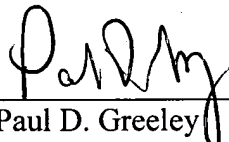
- In claim 20, the term “progressively” is already in lower case letters, and so does not require amendment to comply with the Office Action. The Office Action may be referring to the USPTO publication of this application, which misprinted “progressively” with an upper case “P” in claim 20.

For the above reasons, Applicants respectfully request reconsideration and withdrawal of the §112, 2<sup>nd</sup> paragraph rejections to claims 1 – 11 and 13 – 20.

Accordingly, Applicants submit that the application is now in condition for allowance, and respectfully request issuance of a Notice of Allowability for claims 1 – 11 and 13 – 20.

Respectfully submitted,

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Date

  
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